Occurrence Report

Waste Isolation Pilot Plant

(Name of Facility)

Nuclear Waste Operations/Disposal

(Facility Function)

Carlsbad Area Office Westinghouse Waste Isolation Div.

(Laboratory, Site, or Organization)

Name: XXXX
Title: ASSIST MGR **Telephone No.:** XXXX

(Facility Manager/Designee)

Name: XXXX
Title: ASSIST MGR **Telephone No.:** XXXX

(Originator/Transmitter)

Name: **Date:**

(Authorized Classifier (AC))

1. Occurrence Report Number: ALO--WWID-WIPP-2000-0004

Salt Handling Hoist Trip Notification to MSHA

2. Report Type and Date: Final

	Date	Time
Notification:	12/13/2000	06:36 (MTZ)
Initial Update:	01/15/2001	08:20 (MTZ)
Latest Update:	01/15/2001	08:20 (MTZ)
Final:	01/15/2001	15:08 (MTZ)

3. Occurrence Category: Off-Normal

4. Number of Occurrences: 1 **Original OR:**

5. Division or Project: WIPP

6. Secretarial Office: EM - Environmental Management

7. System, Bldg., or Equipment: Salt Handling Hoist

8. UCNI?: No

9. Plant Area: Salt Handling

10. Date and Time Discovered: 11/30/2000 08:02 (MTZ)

11. Date and Time Categorized: 12/04/2000 15:45 (MTZ)

12. DOE Notification:

13. Other Notifications:

14. Subject or Title of Occurrence:

Salt Handling Hoist Trip Notification to MSHA

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15. Nature of Occurrence:

02) Environmental

E. Environmental Agreement/Compliance Activities

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16. Description of Occurrence:

At 0802 on November 30, 2000 the Central Monitoring Room received notification of an automatic trip on the Salt Handling Hoist. The hoist was in transit to the surface with one person aboard. The hoist was 30 feet from the surface when the trip occurred. Communications were immediately established with the individual and it was verified that no injuries were sustained. The trip was determined to be a fault in a DC voltage power supply to the control circuitry for the hoist speed. The power supply was replaced at 0900 and the hoist was brought to the surface and the individual exited. Further tests were performed to verify the operation of the hoist. The hoist tests were completed satisfactorily and the hoist was placed back in service for normal use at 0950.

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17. Operating Conditions of Facility at Time of Occurrence:

Faciltiy configured for Surface Waste Handling & Underground Storage

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18. Activity Category:

03 - Normal Operations

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19. Immediate Actions Taken and Results:

Immediate communications were established with the individual on the hoist.

Maintenance and engineering immediately began to troubleshoot and correct the problem.

20. Direct Cause:

1) Equipment/Material Problem

A. Defective or Failed Part

21. Contributing Cause(s):

22. Root Cause:

1) Equipment/Material Problem

A. Defective or Failed Part

23. Description of Cause:

The power supply was installed as part of the Salt Hoist revamp in 1986-1987 and is now approximately 15 years old. Since the hoist controls are now obsolete, replacement parts are maintained by sending defective parts to the manufacturer for repair after failure.

Industry experience shows that electrical equipment failures occur for a variety of reasons including over-voltages, overloads and component aging. WID performs periodic preventive maintenance on all hoist equipment in an effort to detect and correct incipient failures. For the power supply under consideration, this involves periodic inspection, cleaning and voltage measurements, which are the actions recommended by the equipment manufacturer. We consider these maintenance activities to be prudent and adequate, and no additional actions are warranted.

As with any system, however, some failure mechanisms don't present any symptoms until actual failure occurs. For this reason, WIPP can reasonably expect that unanticipated equipment failures will occur from time to time and should be prepared to effectively respond. Spares are kept available to expedite repairs and procedures are in place to rescue personnel who are stranded by a failure if required. Three spare power supplies are kept in warehouse stock.

The problem was corrected in a reasonable amount of time after performing the needed repairs. Another means of retrieving the person would have been to use Dynamic Lowering, a procedure by which the conveyance is lowered by converting the motor into a short-circuited generator and releasing the brakes. This procedure could have been used, with slight modifications to accommodate the loss of the power supply, but the time required would have exceeded that for repairs.

In summary, WID continues to take a practical and prudent approach to preventive maintenance on the hoists, including the power supply under consideration. Spare parts are in the warehouse, and WID is prepared to respond to equipment failure effectively with multiple contingency plans. No additional actions are warranted.

24. Evaluation (by Facility Manager/Designee):

The occurrence was reported late due to awaiting clarification from MSHA on the requirement for notification.

25. Is Further Evaluation Required?: No

26. Corrective Actions

(* = Date added/revised since final report was approved.)

1. Manager to perform reveiw of event and determine cause.

Target Completion Date: 01/12/2001	**Completion Date:** 01/09/2001

27. Impact on Environment, Safety and Health:

None

28. Programmatic Impact:

None

29. Impact on Codes and Standards:

Notification required to Mine Safety and Health Administration due to the event being considered as entrapment under 30 CFR Subpart A sections 50.1(b) and 50.2.

Requirement Correction - 30 CFR Subchapter M Subpart A sections 50.2.h.(3) and 50.10.

30. Lessons Learned:

The communication system established in the hoists are of high importance as demonstrated during the event.

31. Similar Occurrence Report Numbers:

1. none

32. User-defined Field #1:

33. User-defined Field #2:

34. DOE Facility Representative Input:

WIPP Facility Representative concurs with the FMD's assessment of the direct cause and that the actions taken and results achieved were timely and effective.

Entered by: XXXX Date: 01/15/2001

35. DOE Program Manager Input:

36. Approvals:

Approved by: XXXX Facility Manager/Designee
Date: 01/15/2001
Telephone No.: XXXX

Approved by: XXXX Facility Representative/Designee
Date: 01/15/2001
Telephone No.: XXXX

Approved by: Approval delegated to FR
Date: 01/15/2001
Telephone No.:
